

# OnCell G3110/G3150-HSPA Series

*Advanced five-band GSM/GPRS/EDGE/UMTS/HSPA IP gateways*



- > Five band UMTS/HSPA 800/850/AWS/1900/2100 MHz
- > Quad-band GSM/GPRS/EDGE 850/900/1800/1900 MHz
- > Redundant DC power inputs
- > Connect to Ethernet and serial devices over an integrated VPN
- > 2 digital inputs and 1 relay output
- > Centralize private IP management software with OnCell Central Manager



## Overview

The OnCell G3110/G3150-HSPA series of high-speed industrial-grade IP gateways are intelligent wireless communication platforms that connect your Ethernet and serial devices over a cellular TCP/IP network. The OnCell G3110/G3150-HSPA series offers connectivity to all five HSPA/UMTS frequency bands and quad GSM/GPRS/EDGE frequency bands used in Europe and the United States, allowing the most flexible global deployment on the best available network.

The OnCell G3110/G3150-HSPA products come with private IP management software and support VPN for handling IP addresses on cellular networks, and have a built-in relay output that can be configured to indicate the priority of events when notifying or warning engineers in the field. Two digital inputs also allow you to connect basic I/O devices, and the OnCell G3110/G3150-HSPA series comes with redundant power inputs to assure non-stop operation.

## Specifications

### Cellular Interface

**Standards:** GSM/GPRS/EDGE/UMTS/HSPA

**Band Options:**

- Five-band UMTS/HSPA 800/850/AWS/1900/2100 MHz
- Quad-band GSM/GPRS/EDGE 850/900/1800/1900 MHz

**HSPA Data Rate:** 14.4 Mbps DL, 5.76 Mbps UL

**EDGE Multi-slot Class:** Class 12

**EDGE Data Rate:** 237 kbps DL, 237 kbps UL

**EDGE Terminal Device Class:** Class B

**GPRS Multi-slot Class:** Class 12

**GPRS Data Rate:** 85.6 kbps DL, 85.6 kbps UL

**GPRS Terminal Device Class:** Class B

**GPRS Coding Schemes:** CS1 to CS4

**Tx Power:**

UMTS/HSPA: 0.25 W

EDGE900: 0.5 W

EDGE1800: 0.4 W

GSM1800: 1 W

GSM900: 2 W

### LAN Interface

**Number of Ports:** 1

**Ethernet:** 10/100 Mbps, RJ45 connector, auto MDI/MDIX

### Interface

**Cellular Antenna Connectors:** 1, SMA (female)

### I/O Interface

**Alarm Contact:** 1 relay output with current carrying capacity of 1 A @ 24 VDC

**Digital Inputs:** 2 electrically isolated inputs

- +13 to +30 V for state "1"
- +3 to -30 V for state "0"

### Software

**Network Protocols:** ARP, DDNS, DHCP/BOOTP, DNS Relay, HTTP, HTTPS, ICMP, IPSec, SMTP, SNTP, SSH, SSL, TCP/IP, Telnet, UDP

**Routing/Firewall:** NAT, port forwarding, WAN IP filtering

**Cellular Connectivity:** GuaranLink

**Serial Security:** Accessible IP list

**Serial Operation Modes:** Real COM, Reverse Real COM, TCP Server, TCP Client, UDP, SMS Tunnel, RFC2217, Secure Real COM, Secure Reverse Real COM, Secure TCP Server, Secure TCP Client, Ethernet Modem

**Windows Real COM Drivers:** Windows 2000/XP/2003/Vista/7/Server 2008, Windows XP/2003/Vista/7/Server 2008 x64 Edition / Windows 8 / Windows 10

**Fixed TTY Drivers:** SCO Unix, SCO OpenServer 5, SCO OpenServer 6, UnixWare 7, SVR4.2, QNX 4.25, QNX 6, Solaris 10, FreeBSD 5, FreeBSD 6

**Linux Real TTY Drivers:** Linux kernels 2.2.x, 2.4.x, 2.6.x

**Authentication:** Local username and password

### Management Software

**Utilities:** Wireless Search Utility

**Configuration and Management Options:** SNMP v1/v2c/v3, Web/Telnet/Serial Console, SSH, Remote SMS Control, Caller ID, Auto IP Report

**Centralized Device Management, Monitoring and Private IP**

**Solution:** OnCell Central Manager

### SIM Interface

**Number of SIMs:** 1

**SIM Control:** 3 V

### Serial Interface

**Number of Ports:** 1

**Serial Standards:**

OnCell G3110-HSPA: RS-232 (DB9 male connector)

OnCell G3150-HSPA: RS-232 (DB9 male connector), RS-422/485 (5-pin terminal block connector)

### Serial Communication Parameters

**Data Bits:** 5, 6, 7, 8

**Stop Bits:** 1, 1.5, 2 (when parity = None)

**Parity:** None, Even, Odd, Space, Mark

**Flow Control:** RTS/CTS, XON/XOFF

**Baudrate:** 50 bps to 921.6 kbps

### Serial Signals

**RS-232:** TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND

**RS-422:** Tx+, Tx-, Rx+, Rx-, GND

**RS-485-4w:** Tx+, Tx-, Rx+, Rx-, GND

**RS-485-2w:** Data+, Data-, GND

### Physical Characteristics

**Housing:** Aluminum, providing IP30 protection

**Weight:** 445 g (0.98 lb)

**Dimensions:** 28 x 126 x 93 mm (1.1 x 4.94 x 3.64 in)

### Environmental Limits

**Operating Temperature:**

Standard Models: -30 to 55°C (-22 to 131°F)

Wide Temp. Models: -30 to 70°C (-22 to 158°F)

**Storage Temperature:** -40 to 75°C (-40 to 167°F)

**Ambient Relative Humidity:** 5 to 95% (non-condensing)

### Power Requirements

**Number of Power Inputs:** 2 (terminal block), redundant dual inputs  
**Input Voltage:** 12 to 48 VDC

**Input Current:** 0.9 A @ 12 VDC; 0.23 A @ 48 VDC

**Reverse Polarity Protection:** Present

### Standards and Certifications

**Safety:** UL 60950-1

**EMC:** EN 55022/24

**EMI:** CISPR 22, FCC Part 15B Class A

**EMS:**

IEC 61000-4-2 ESD: Contact: 8 kV; Air: 15 kV

IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m

IEC 61000-4-4 EFT: Power: 4 kV; Signal: 2 kV

IEC 61000-4-5 Surge: Power: 1 kV

IEC 61000-4-6 CS: 3 V

IEC 61000-4-8

**Radio:** FCC Part 22H, FCC Part 24E, EN 301 489-1, EN 301 489-7, EN 301 489-24, EN 301 511, EN 301 908

### MTBF (mean time between failures)

**Time:** 380,000 hrs

**Standard:** Telcordia SR332

### Warranty

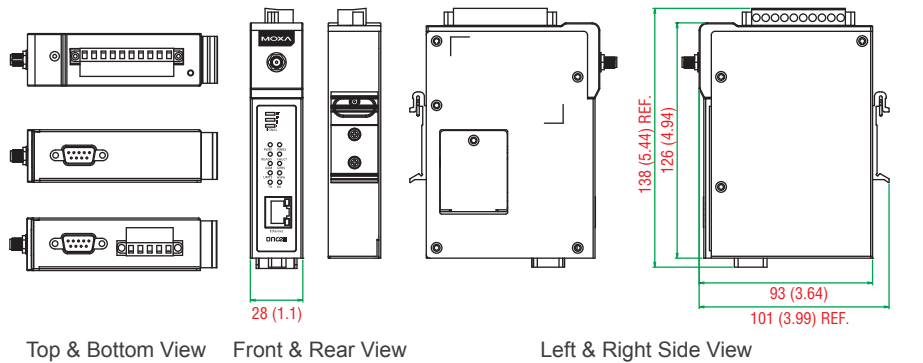
**Warranty Period:** 5 years

**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

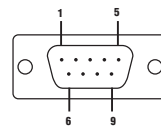
### Dimensions & Pin Assignment

OnCell G3110-HSPA Series

OnCell G3150-HSPA Series



### DB9 male connector



PIN	RS-232	RS-422/485-4w	RS-485-2w
1	DCD	TxD-(A)	-
2	RxD	TxD+(B)	-
3	TxD	RxD+(B)	Data+(B)
4	DTR	RxD-(A)	Data-(A)
5	GND	GND	GND
6	DSR	-	-
7	RTS	-	-
8	CTS	-	-
9	-	-	-

### Ordering Information

#### Available Models

**OnCell G3110-HSPA:** 1-port five-band industrial GSM/GPRS/EDGE/UMTS/HSPA IP gateway, RS-232, -30 to 55°C operating temperature

**OnCell G3150-HSPA:** 1-port five-band industrial GSM/GPRS/EDGE/UMTS/HSPA IP gateway, RS-232/422/485, -30 to 55°C operating temperature

**OnCell G3110-HSPA-T:** 1-port five-band industrial GSM/GPRS/EDGE/UMTS/HSPA IP gateway, RS-232, -30 to 70°C operating temperature

**OnCell G3150-HSPA-T:** 1-port five-band industrial GSM/GPRS/EDGE/UMTS/HSPA IP gateway, RS-232/422/485, -30 to 70°C operating temperature

Note: Please visit Moxa's website for a complete list of optional wireless accessories and antennas available for Moxa's wireless products.

#### Package Checklist

- OnCell G31x0-HSPA IP gateway
- 1 UMTS/HSPA antenna: ANT-WCDMA-ASM-1.5
- DIN-rail kit
- Quick installation guide (printed)
- Warranty card

Note: An activated SIM card (not included) must be provided by a third party Cellular Service Provider.